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REMARKS

Claims 7-10 are now pending in the application. Claim 7 has been amended herein, and claim 10 has been added. Favorable reconsideration of the application, as amended, is respectfully requested.

New claim 10 is directed to making an optical disk via an optical disk master analogous to that recited in claim 7.

I. REJECTION OF CLAIMS 7-9 UNDER 35 USC §102(b)

Claims 7-9 are rejected under 35 USC §102(b) based on *Van et al.* (EP 0304312). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claims 7 and 10 recite a method in which the photoresist film on the substrate is irradiated with a beam so as to form a first beam trace. Thereafter, the photoresist film is irradiated with the same beam such that the beam partially overlaps the first beam trace to form a second beam trace.

Although applicants believe the original wording of claim 7 was sufficiently clear that it was the same beam with which the photoresist film was irradiated so as to partially overlap the first beam trace to form the second beam trace, claim 7 has nevertheless been amended to make it very clear. Specifically, claim 7 recites how the same beam is used.

Such feature of the invention, as recited in claims 7 and 10, is advantageous in that it provides a method for easily producing an optical disk master in which a width of each of emboss pits of address regions and a width of a groove region are different from each other using only one beam. Such method as recited in claims 7 and 10 overcomes disadvantages associated with conventional methods which used two different light beams. Such methods were difficult to perform, since in order to make the width of the address region and the width of the groove region different from each other, it was necessary to perform the alignment of the two light beams having different widths at an accuracy of about 0.1 μm or less. Thus, the production of the master disk was extremely difficult. Moreover, the width of the groove region on the master could

only be made, at most, at about 1.5 times as large as that of the address region. (See, e.g., Spec., p. 4, lns. 16-26).

Van et al. does not teach or suggest such use of a same beam in forming a second beam trace partially overlapping a first beam trace. The Examiner relies on *Van et al.* as teaching a first exposure using two beams forming two tracks and a second exposure which shifts the beams so that the left most beam overlaps the previously exposed region L. However, in *Van et al.* two laser beams 21 and 22 serve to provide exposed areas 24 and 25 as shown in Fig. 5a. Thereafter, the laser beams 21 and 22 are shifted for the next rotation of the disk in order that the laser beam 22 overlaps the exposed area 24 previously made by the *other* laser beam 21 (See, e.g., Fig. 6a).

Thus, *Van et al.* teaches forming a first beam trace with *one* of two laser beams, and subsequently forming an overlapping beam trace with the *other* of the two laser beams. In other words, the same laser beam *does not* function to expose both overlapping areas as in the method of claims 7 and 10.

Van et al. neither teaches or suggests the use of a same beam as recited in claims 7 and 10. Nor does *Van et al.* teach or suggest the advantages of such a method as described above. Accordingly, withdrawal of the rejection is respectfully requested.

II. REJECTION OF CLAIMS 7-9 UNDER 35 USC §103(a)

Claims 7-9 also are rejected under 35 USC §103(a) based on *Adachi et al.* in view of *Van et al.*, *Miyagi et al.* and *Fujita et al.* Withdrawal of this rejection is respectfully requested for at least the following reasons.

Adachi et al. '851 is similar to *Van et al.* in that it also utilizes two laser beams. A beam splitter is used in *Adachi et al.* for forming two beams from a single beam in order to irradiate the substrate with the two beams. Thus, *Adachi et al.* teaches away from using a single beam and thus teaches away from the present invention.

Fujita et al. also uses two laser beams for recording grooves varying in width. Thus, *Fujita et al.* does not make up for the deficiencies in *Adachi et al.* and *Van et al.*

Miyagi et al. appears to show a single laser beam embodiment in Fig. 1 and a dual laser beam embodiment in Fig. 3. However, *Miyagi et al.* does not have anything to do with forming overlapping beam traces. Thus, at most it would have been obvious to combine the teachings of *Miyagi et al.* with *Adachi et al.* by taking the single beam of Miyagi et al. and combining it with the beam splitter of *Adachi et al.* so as to generate two separate beams as in the other embodiment of *Miyagi et al.* None of the references teach or suggest using a same beam to form partially overlapping traces as in the present invention.

Consequently, withdrawal of the rejection is respectfully requested.

III. CONCLUSION

Accordingly, all claims 7-10 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

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Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on the date shown below:

November 26, 2002
DATE

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APPENDIX

IN THE CLAIMS:

Claim 7 has been amended as follows:

7. (Amended) A method for producing an optical disk master, comprising the steps of:

(a) providing a substrate having a photoresist film provided on a surface thereof;

(b) rotating the substrate in a relative relationship with a beam;

(c) irradiating the photoresist film on the substrate with the beam so as to form a first beam trace in the photoresist film;

(d) further irradiating the photoresist film with the same beam such that the beam partially overlaps the first beam trace, so that a second beam trace is formed in the photoresist film; and

(e) completing the optical disk master using the photoresist film.